

Product: **MIXLAND+® ZNO 80 GA**

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SDS No.: 100082-100 (Version 3.0)

Date 03.09.2019 (Cancel and replace : 20.05.2016)

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Identification of the product

Identification of the mixture: MIXLAND+® ZNO 80 GA

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture : Curing chemical

1.3. Details of the supplier of the safety data sheet

Supplier	MLPC International 209, Avenue Charles Despiau F-40370 RION-DES-LANDES, FRANCE Telephone: + 33 (0) 5 58 57 02 00 E-mail address: http://www.mlpc-intl.com fds@mlpc-intl.com
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1.4. Emergency telephone number

+1-703-741-5970 CHEMTREC international emergency phone number (ARKEMA CCN830055)

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008):

Acute aquatic toxicity, 1, H400
Chronic aquatic toxicity, 1, H410

Additional information:

For the full text of the H, EUH-phrases mentioned in this Section, see Section 16.

2.2. Label elements

Label elements (REGULATION (EC) No 1272/2008):

Hazardous components which must be listed on the label:

zinc oxide

Hazard pictograms:



Signal word:

Warning

Hazard statements:

H410 : Very toxic to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 : Avoid release to the environment.

Disposal:

P501 : Dispose of contents or container to an approved waste disposal plant.

2.3. Other hazards : None.

Other:

Results of PBT and vPvB assessment : Based on the available information, it is not possible to conclude on the hazard potential of this mixture.

3. COMPOSITION/INFORMATION ON INGREDIENTS**3.2. Mixtures****Chemical nature of the mixture¹:**

Mixture based on: Polymer and

Hazardous components (accordance with Annex II of Regulation (EC) No 1907/2006 and its amendment(s)) :

Chemical name ¹ & REACH Registration Number ²	EC-No.	CAS-No.	Concentration	Classification REGULATION (EC) No 1272/2008
Zinc oxide (01-2119463881-32) (N° ANNEX: 030-013-00-7)	215-222-5	1314-13-2	<= 80 %	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor Acute = 1 M-Factor Chronic = 1
Distillates (petroleum), hydrotreated light paraffinic (01-2119487077-29) (N° ANNEX: 649-468-00-3)	265-158-7	64742-55-8	<= 6 %	Asp. Tox. 1; H304 Nota L: DMSO <3%

¹: See chapter 14 for Proper Shipping Name

²: See the text of the regulation for applicable exceptions or provisions -

4. FIRST AID MEASURES**4.1. Description of necessary first-aid measures:****General advice:**

Take off immediately all contaminated clothing.

Inhalation:

Move to fresh air. Consult a physician.

Skin contact:

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Eye contact:

Wash well-open eyes immediately, abundantly and thoroughly with water. Consult an ophthalmologist.

Ingestion:

Call a physician immediately. Do not induce vomiting without medical advice. Rinse mouth.

Protection of first-aiders:

If entering a saturated atmosphere, wear a self contained breathing apparatus.

4.2. Most important symptoms/effects, acute and delayed: No data available.**4.3. Indication of immediate medical attention and special treatment needed, if necessary:** No data available.**5. FIREFIGHTING MEASURES****5.1. Extinguishing media**

Suitable extinguishing media: Water spray, Foam, Dry powder

Unsuitable extinguishing media: All other extinguishants

5.2. Special hazards arising from the substance or mixture:

Thermal decomposition gives : Nitrogen oxides (NOx), Sulphur oxides, Carbon oxides

5.3. Advice for firefighters:**Specific methods:**

Suppress gases, fumes and/or dust with water spray jet. Remove all sources of ignition.

Special protective actions for fire-fighters:

Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures:

Avoid contact with skin and eyes and inhalation of dust.

6.2. Environmental precautions:

Do not let product enter drains. Do not contaminate surface water.

6.3. Methods and materials for containment and cleaning up:

Recovery:

Shovel or sweep up. Recover the product and place in a dry labelled container.

Elimination:

Dispose of as hazardous waste in compliance with local and national regulations.

6.4. Reference to other sections: None.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling:

Technical measures/Precautions:

Provide appropriate exhaust ventilation at machinery. Provide showers, eye-baths. In the presence of an ignition source: Dust may form explosive mixture in air.

Safe handling advice:

In case of dust formation, wear a dust mask. Avoid static electricity build up with connection to earth.

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with the skin and the eyes. Wash hands after handling. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities:

Store protected from moisture and heat. Protect from light. Keep away from direct sunlight.

Incompatible products:

Strong acids Oxidizing agents

Packaging material:

Recommended: Cardboard lined with polyethylene liner, Paper bags lined with polyethylene

7.3. Specific end use(s): None.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters:

Exposure Limit Values Not relevant

Derived No Effect Level (DNEL): No data available.

Predicted No Effect Concentration: No data available.

8.2. Exposure controls: No data available.

Personal protective equipment:

Environmental exposure controls: See chapter 6

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance:

Physical state (20°C): solid (20 °C)

Form: pellets

Colour: Whitish.

Odour: odourless

Olfactory threshold:	Not relevant
pH:	No data available.
Melting point/range :	1.975 °C (Reported data)
Boiling range :	not determined
Flash point:	No data available
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Vapour pressure:	negligible
Vapour density:	No data available.
Density:	2.500 g/cm ³ , at 20 °C packed
Water solubility:	No data available.
Partition coefficient: n-octanol/water:	ZINC OXIDE : Not applicable, inorganic
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.
Explosive properties:	No data available.
Oxidizing properties:	No data available.

9.2. Other data:

Molecular weight:	84 g/mol
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10. STABILITY AND REACTIVITY

10.1. Reactivity: No data available.

10.2. Chemical stability:

The product is stable under normal handling and storage conditions.

10.3. Possibility of hazardous reactions: No data available.

10.4. Conditions to avoid:

Store protected from moisture and heat. Protect from light. Keep away from direct sunlight.

10.5. Incompatible materials to avoid:

Strong acids and strong bases

10.6. Hazardous decomposition products:

Nitrogen oxides (NO_x), Carbon dioxide (CO₂), Sulphur oxides

11. TOXICOLOGICAL INFORMATION

All available data on this product and/or the components quoted in section 3 and/or the analogue substances/metabolites have been taken into account for the hazard assessment.

11.1. Information on toxicological effects:**Acute toxicity:**

Inhalation: Based on the available information, it is not possible to conclude on the hazard potential of this mixture.

ZINC OXIDE :

• In animals : No mortality/4 h/Rat: 5,7 mg/l (Method: OECD Test Guideline 403) (Aerosol)

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :

• In animals : No mortality/4 h/Rat: 5,53 mg/l (Method: OECD Test Guideline 403) (Aerosol)

Ingestion:

Based on the available information, it is not possible to conclude on the hazard potential of this mixture.

ZINC OXIDE :

• In animals : No mortality/Rat: 5.000 mg/kg (Method: OECD Test Guideline 401)

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :

• In animals : No mortality/Rat: 5 g/kg (Method: OECD Test Guideline 401)

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Dermal: **Based on the available information, it is not possible to conclude on the hazard potential of this mixture.**

ZINC OXIDE :
• In animals : No mortality/Rat: 2.000 mg/kg (Method: OECD Test Guideline 402)

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :
• In animals : No mortality/Rabbit: 5 g/kg (Method: OECD Test Guideline 402)

Local effects (Corrosion / Irritation / Serious eye damage):

Skin contact: **According to EU classification criteria, this product/mixture is not classified as irritant.**

ZINC OXIDE :
• In animals : No skin irritation (Rabbit, Exposure time: 24 h)
Non-corrosive. (OECD Test Guideline 431)

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :
• In animals : Slightly irritating to skin. (Rabbit, Exposure time: 24 h)

Eye contact: **According to EU classification criteria, this product/mixture is not classified as irritant.**

ZINC OXIDE :
• In animals : Mild eye irritation (OECD Test Guideline 405, Rabbit)

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :
• In animals : No eye irritation (OECD Test Guideline 405, Rabbit)

Respiratory or skin sensitisation:

Inhalation: No data available.

Skin contact: **According to its composition : Risk of skin sensitization.**

ZINC OXIDE :
• In animals : Equivocal response. (Method: OECD Test Guideline 406 Guinea pig maximization test)

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :
• In animals : Not a skin sensitizer (Method: OECD Test Guideline 406 Guinea pig maximization test)

CMR effects :

Mutagenicity: **Based on the available information, it is not possible to conclude on the hazard potential of this mixture.**

In vitro

ZINC OXIDE :
Ames test in vitro: Inactive (Method: OECD Test Guideline 471)
Chromosome aberration test in vitro: Some positive tests (Method: OECD Test Guideline 473)
In vitro mammalian cell gene mutation test: Inconclusive results (Method: OECD Test Guideline 476)
unscheduled DNA synthesis assay: Active

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :
Ames test in vitro: Inactive (Method: OECD Test Guideline 471)
In vitro test for chromosomal abnormalities on CHO cells: Inactive (Method: OECD Test Guideline 473)
In vitro gene mutations test on mammalian cells: Inactive (Method: OECD Test Guideline 476)

In vivo

ZINC OXIDE :
In vivo micronucleus test: Inactive (Method: OECD Test Guideline 474)
Chromosome aberration test in vivo: Active

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :
Micronucleus test in vivo mouse: Inactive (Method: OECD Test Guideline 474)

Carcinogenicity: No data available.

Reproductive toxicity:

Fertility: **Based on the available information, it is not possible to conclude on the hazard potential of this mixture.**

ZINC OXIDE :
• In animals : Two generations study.
NOAEL (Parental toxicity) : 7,5 mg/kg bw/day
NOAEL (Fertility) : 7,5 mg/kg bw/day
NOAEL (Developmental Toxicity) : 7,5 mg/kg bw/day
(Method: OECD Test Guideline 416, Rat, By oral route)
(Results obtained on a similar product).

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :

- In animals : Reproductive/Developmental Effects Screening Assay: No toxicity to reproduction
NOAEL (Parental toxicity) : 1 g/kg
NOAEL (Fertility) : 1 g/kg
(Method: OECD Test Guideline 421, Rat, By oral route)
- Foetal development:** **Based on the available information, it is not possible to conclude on the hazard potential of this mixture.**
- ZINC OXIDE :
 - In animals : Absence of toxic effects for foetal development.
NOAEL (Developmental Toxicity) : 7,5 mg/m³
NOAEL (Maternal Toxicity) : 1,5 mg/m³
(Method: OECD Test Guideline 414, Rat, By inhalation) (Aerosol)
May be considered as comparable to a similar product for which experimental results are:
Absence of toxic effects for foetal development.
NOAEL (Developmental Toxicity) : 30 mg/kg bw/day
NOAEL (Maternal Toxicity) : 30 mg/kg bw/day
(Method: OECD Test Guideline 414, rat, mouse, rabbit, By oral route)
- DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :
 - In animals : Absence of toxic effects for foetal development.
NOAEL (Developmental Toxicity) : 2 g/kg
NOAEL (Maternal Toxicity) : < 0,125 g/kg
(Method: OECD Test Guideline 414, Rat, dermal route)

Specific target organ toxicity :**Single exposure :**

Inhalation: **According to its composition : Risk of irritation of respiratory system**

Repeated exposure:

Based on the available information, it is not possible to conclude on the hazard potential of this mixture.

- ZINC OXIDE :
 - In animals : By inhalation: Hyperplasia, Target organs: Respiratory Tract, NOAEL= 0,0015 mg/l (Method: OECD Test Guideline 413, Rat, 3 months) (Aerosol)

May be considered as comparable to a similar product for which experimental results are:
By diet: No specific toxic effects
Blood disorders, changes in body weight, NOAEL= 234 mg/kg (Method: OECD Test Guideline 408, Rat, 3 months)

- DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :
 - In animals : By inhalation: No effect is reported.
NOAEL= > 1 mg/l (Rat, 4 Weeks) (Aerosol)
dermal route: No effect is reported.
NOAEL= > 2g/kg bw/d (Method: OECD Test Guideline 411, Rat, 3 months)
By oral route: (Results obtained on a similar product).
Target organs: Reproductive organs, Stomach, Liver, Thymus, NOAEL= < 125 mg/kg (Method: OECD Test Guideline 408, Rat, 3 months)

Aspiration hazard:

Not applicable

12. ECOLOGICAL INFORMATION

- Ecotoxicology Assessment: All available data on this product and/or the components quoted in section 3 and/or the analogue substances/metabolites have been taken into account for the hazard assessment.
- Acute aquatic toxicity : Very toxic to aquatic life.
Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

12.1. Acute toxicity :**Fish:**

- DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :
LL50, 96 h (Pimephales promelas (fathead minnow)) : > 100 mg/l (Method: OECD Test Guideline 203)
No effect up to the limit of solubility

Aquatic invertebrates:

- ZINC OXIDE :
EC50, 48 h (Daphnia magna (Water flea)) : 1 mg/l (pH: 7,7)

- DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :
May be considered as comparable to a similar product for which experimental results are:
LL50, 48 h (Daphnia magna (Water flea)) : > 10.000 mg/l (Method: OECD Test Guideline 202, Immobilization) No effect up to the limit of solubility

Aquatic plants:

ZINC OXIDE :

EC r50, 72 h (Pseudokirchneriella subcapitata) : 0,136 mg/l (Method: OECD Test Guideline 201)

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :

May be considered as comparable to a similar product for which experimental results are:
ErL50, 72 h (Pseudokirchneriella subcapitata (green algae)) : > 100 mg/l (Method: OECD Test Guideline 201)

Aquatic toxicity / Long term toxicity:

Fish:

ZINC OXIDE :

NOEC, 32 d (Danio rerio (zebra fish)) : > 0,06 mg/l (Method: OECD Test Guideline 210)

Aquatic invertebrates:

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :

May be considered as comparable to a similar product for which experimental results are:
NOEC, 21 d (Daphnia magna (Water flea)) : 10 mg/l (Method: OECD Test Guideline 211, Growth inhibition/Reproduction inhibition)

Aquatic plants:

ZINC OXIDE :

NOEC r, 72 h (Selenastrum capricornutum) : 0,024 mg/l (Method: OECD Test Guideline 201)

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :

NOEC r, 72 h (Pseudokirchneriella subcapitata (green algae)) : 100 mg/l (Method: OECD Test Guideline 201)

12.2. Persistence and degradability :

Biodegradation (In water):

Based on the available information, it is not possible to conclude on the hazard potential of this mixture.

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT PARAFFINIC :

Not readily biodegradable.: 4 % after 28 d (Method: OECD Test Guideline 301 B)

12.3. Bioaccumulative potential :

Bioaccumulation:

Based on the available information, it is not possible to conclude on the hazard potential of this mixture.

ZINC OXIDE :

Not applicable, inorganic

12.4. Mobility in soil - Distribution among environmental compartments:

Vapor pressure:

negligible,

12.5. Results of PBT and vPvB assessment :

Based on the available information, it is not possible to conclude on the hazard potential of this mixture.

12.6. Other adverse effects: None known.

13. DISPOSAL CONSIDERATIONS**13.1. Waste treatment:**

- Disposal of product:** Destroy the product by incineration (in accordance with local and national regulations).
- Disposal of packaging:** Destroy packaging by incineration at an approved waste disposal site (in accordance with local and national regulations).

14. TRANSPORT INFORMATION

Regulation	14.1. UN number	14.2. UN proper shipping name	14.3. Class ^s *	Label	14.4. PG [*]	14.5. Environmental hazards	14.6. Special precautions for user
ADR	3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ZINC OXIDE)	9	9	III	yes	
ADN	3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ZINC OXIDE)	9	9	III	yes	
RID	3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ZINC OXIDE)	9	9	III	yes	
IATA Cargo	3077	Environmentally hazardous substance, solid, n.o.s. (Zinc Oxide)	9	9MI	III	yes	
IATA Passenger	3077	Environmentally hazardous substance, solid, n.o.s. (Zinc Oxide)	9	9MI	III	yes	
IMDG	3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ZINC OXIDE)	9	9	III	Marine pollutant	EmS Number: F-A, S-F Mark: MP

*Description: 14.3. Transport hazard class(es)
14.4. Packing group

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

15. REGULATORY INFORMATION

Safety data sheets: accordance with Annex II of Regulation (EC) No 1907/2006 and its amendment(s)

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture:

15.2. Chemical safety assessment: None.

INVENTORIES:

EINECS: Conforms to
TSCA: Conforms to
DSL: All components of this product are on the Canadian DSL
IECSC (CN): Conforms to
ENCS (JP): Conforms to
ISHL (JP): Conforms to
KECI (KR): Conforms to
PICCS (PH): Conforms to
AICS: Conforms to
NZIOC: Conforms to
TSCA 12B:

16. OTHER INFORMATION**Full text of H, EUH-phrases referred to under sections 2 and 3**

H304 May be fatal if swallowed and enters airways.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Update:

Safety datasheet sections which have been updated:		Type:
1	1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING, Emergency telephone number	Revisions

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Thesaurus:

NOAEL : No Observed Adverse Effect Level (NOAEL)

LOAEL : Lowest Observed Adverse Effect Level (LOAEL)

bw : Body weight

food : oral feed

dw : Dry weight

vPvB : very Persistent and very Bioaccumulative

PBT : Persistent, Bioaccumulative and Toxic

This information applies to the PRODUCT AS SUCH and conforming to specifications of ARKEMA. In case of formulations or mixtures, it is necessary to ascertain that a new danger will not appear. The information contained is based on our knowledge of the product, at the date of publishing and it is given quite sincerely. Users are advised of possible additional hazards when the product is used in applications for which it was not intended. This sheet shall only be used and reproduced for prevention and security purposes. The references to legislative, regulatory and codes of practice documents cannot be considered as exhaustive. It is the responsibility of the person receiving the product to refer to the totality of the official documents concerning the use, the possession and the handling of the product. It is also the responsibility of the handlers of the product to pass on to any subsequent persons who will come into contact with the product (usage, storage, cleaning of containers, other processes) the totality of the information contained within this safety data sheet and necessary for safety at work, the protection of health and the protection of environment.

NB: In this document the numerical separator of the thousands is the "." (point), the decimal separator is "," (comma).

